FIG. 1

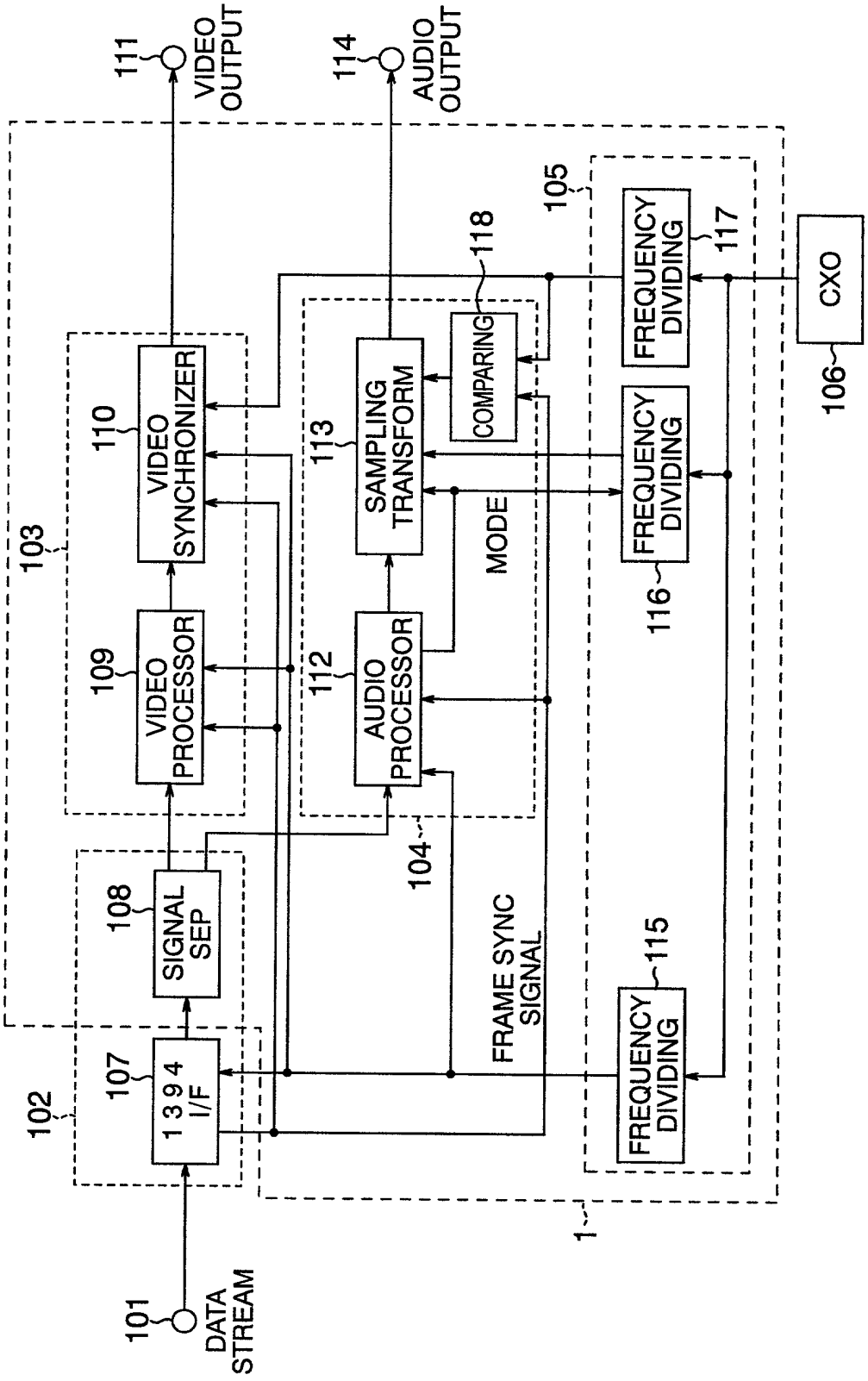

101
DATA STREAM
102
1394 I/F
107
SIGNAL SEP
108
103
VIDEO PROCESSOR
109
VIDEO SYNCHRONIZER
110
111
VIDEO OUTPUT
104
112
AUDIO PROCESSOR
113
SAMPLING TRANSFORM
114
AUDIO OUTPUT
COMPARING
118
MODE
FRAME SYNC SIGNAL
105
FREQUENCY DIVIDING
115
FREQUENCY DIVIDING
116
FREQUENCY DIVIDING
117
CXO
106
1

FIG. 2

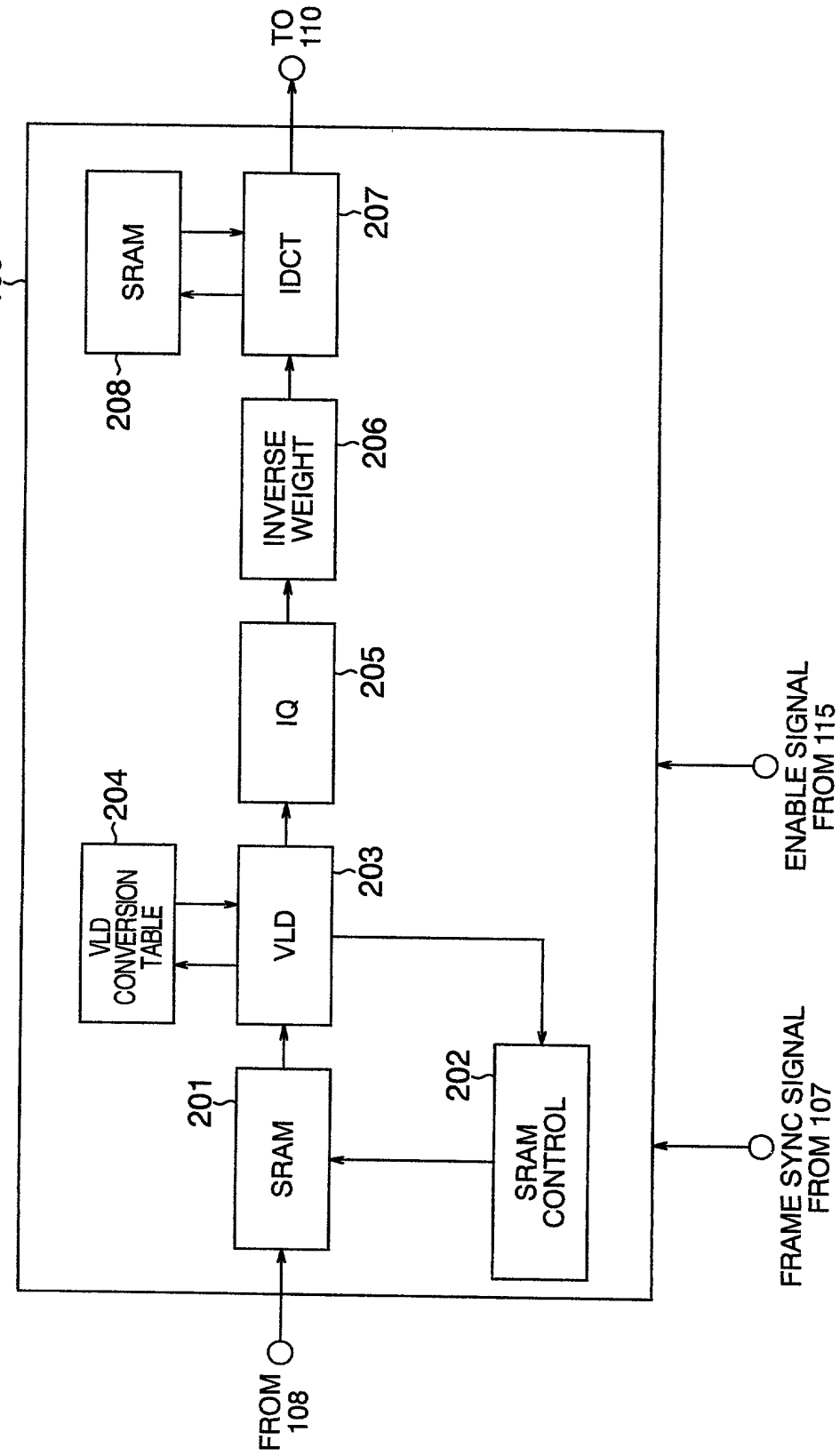

109
FROM 108
TO 110
SRAM
201
SRAM CONTROL
202
VLD
203
VLD CONVERSION TABLE
204
IQ
205
INVERSE WEIGHT
206
IDCT
207
SRAM
208
FRAME SYNC SIGNAL FROM 107
ENABLE SIGNAL FROM 115

FIG. 3

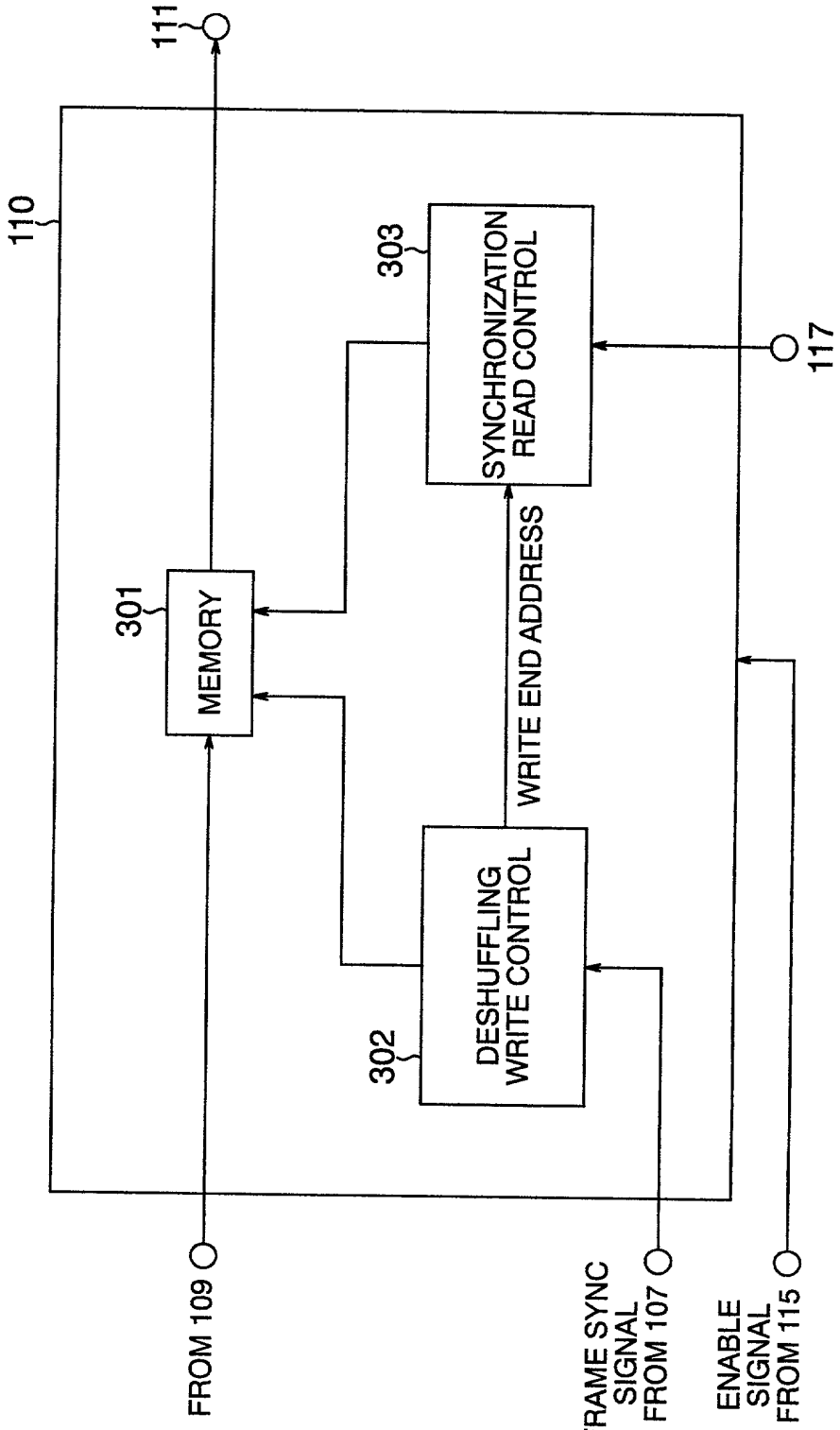

110
111
303
SYNCHRONIZATION READ CONTROL
117
301
MEMORY
WRITE END ADDRESS
302
DESHUFFLING WRITE CONTROL
FROM 109
FRAME SYNC SIGNAL FROM 107
ENABLE SIGNAL FROM 115

FIG. 4

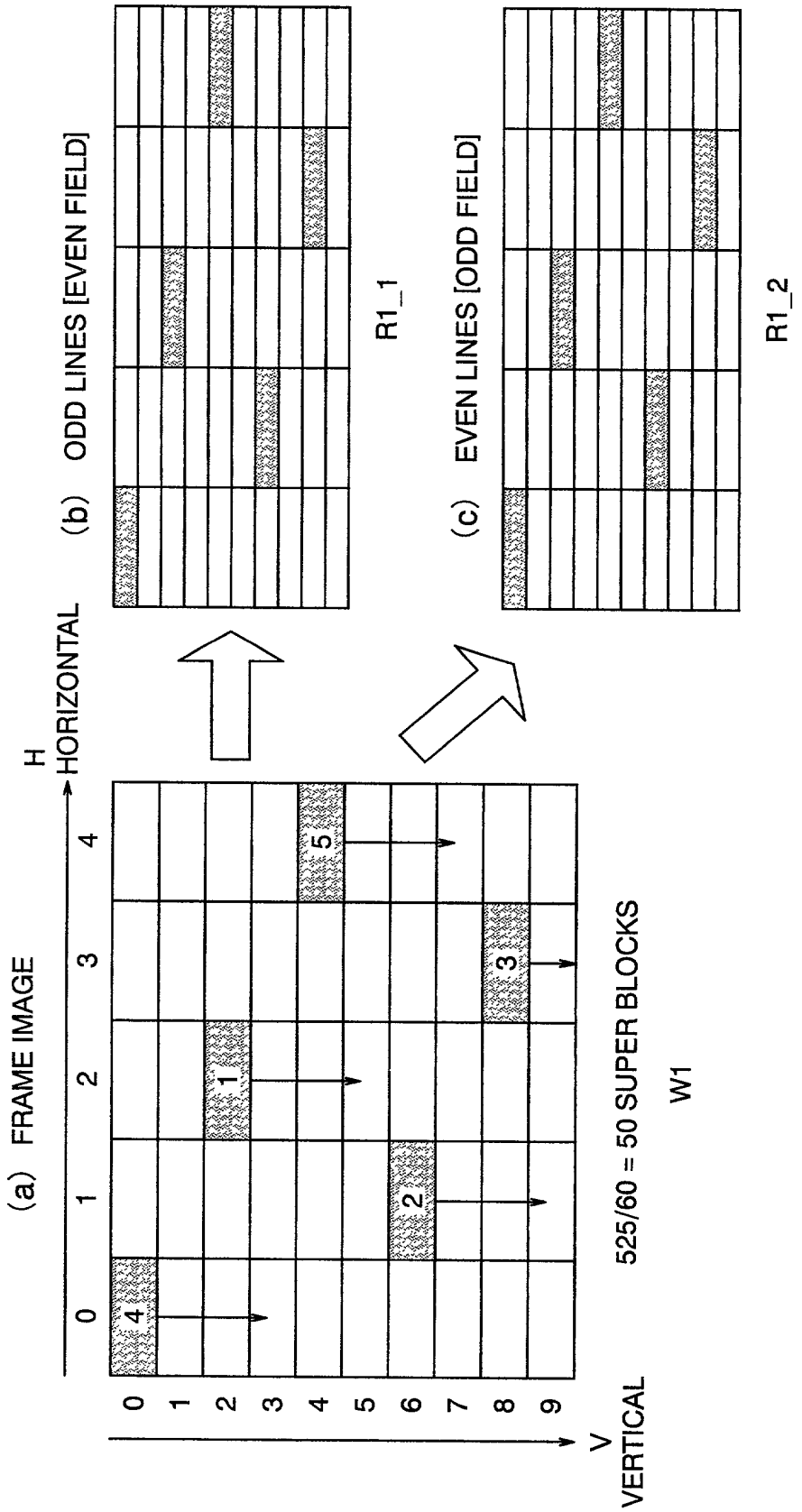

(a) FRAME IMAGE
H
HORIZONTAL
0
1
2
3
4
V
VERTICAL
0
1
2
3
4
5
6
7
8
9
525/60 = 50 SUPER BLOCKS
W1
(b) ODD LINES [EVEN FIELD]
R1_1
(c) EVEN LINES [ODD FIELD]
R1_2

FIG. 5

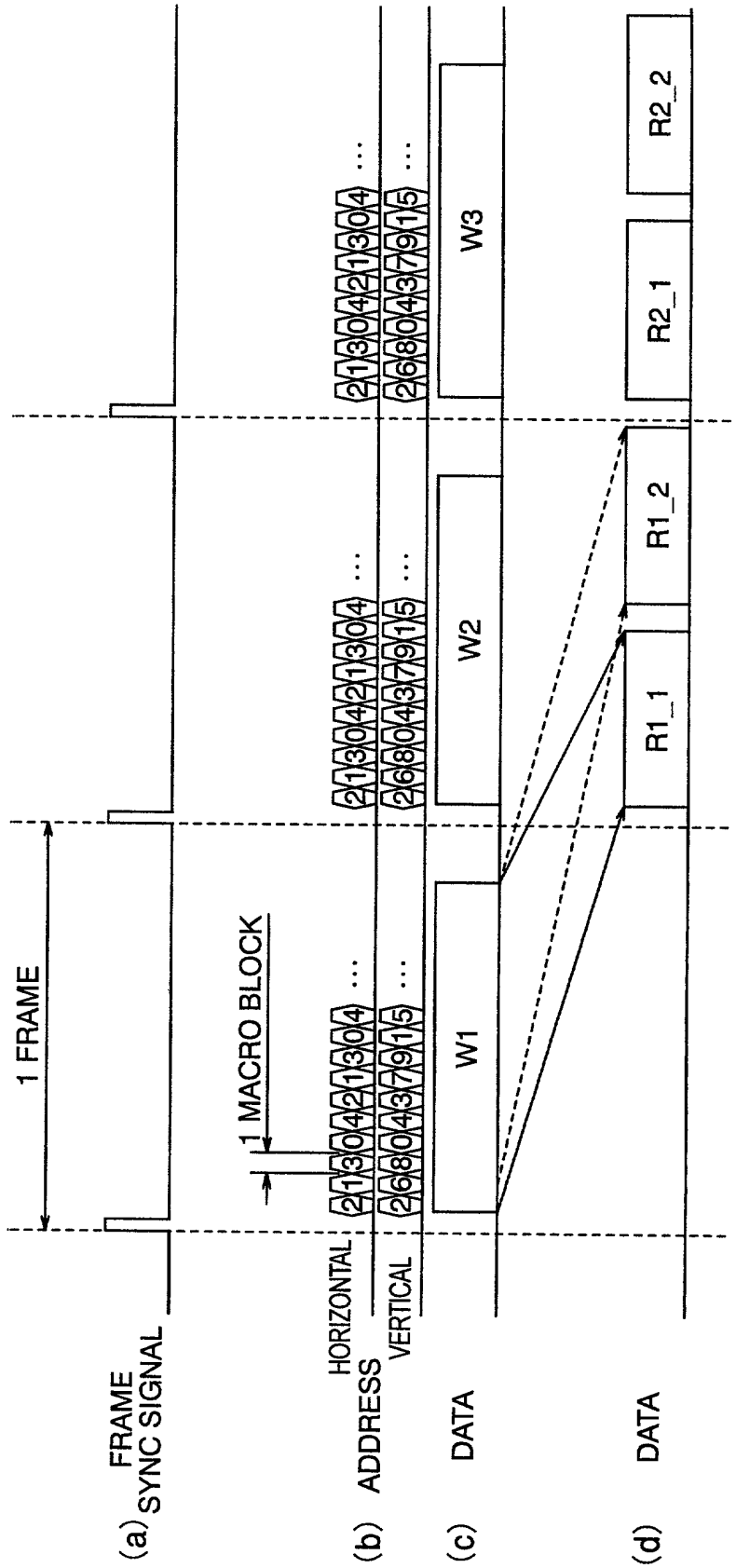

(a) FRAME SYNC SIGNAL
1 FRAME
1 MACRO BLOCK
(b) ADDRESS
HORIZONTAL
VERTICAL
(c) DATA
W1
W2
W3
(d) DATA
R1_1
R1_2
R2_1
R2_2

FIG. 6A

WHEN THE FRAME SYNC SIGNAL FOR OUTPUT IS [EARLIER] THAN THE INPUT SIDE FRAME SYNC SIGNAL
(a) INPUT SIDE FRAME SYNC SIGNAL
(b)
(c) FRAME SYNC SIGNAL FOR OUTPUT
(d)
W1
W2
W3
W4
W5
(e)
R1_1
R1_2
R1_1
R1_2
R2_1
R2_2
R3_1
R3_2
R4_1

FIG. 6B

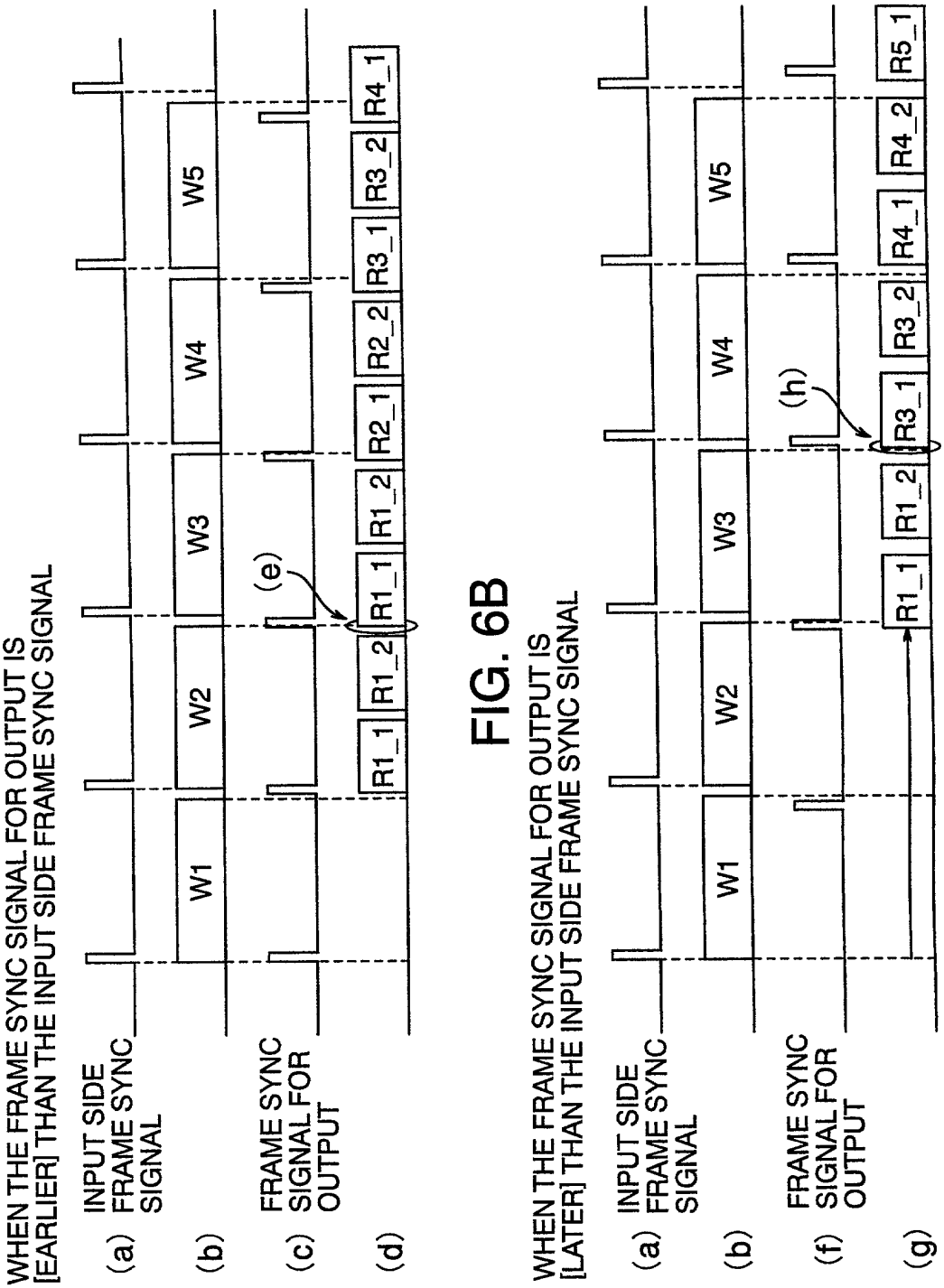

WHEN THE FRAME SYNC SIGNAL FOR OUTPUT IS [LATER] THAN THE INPUT SIDE FRAME SYNC SIGNAL
(a) INPUT SIDE FRAME SYNC SIGNAL
(b)
(f) FRAME SYNC SIGNAL FOR OUTPUT
(g)
W1
W2
W3
W4
W5
(h)
R1_1
R1_2
R3_1
R3_2
R4_1
R4_2
R5_1

FIG. 7

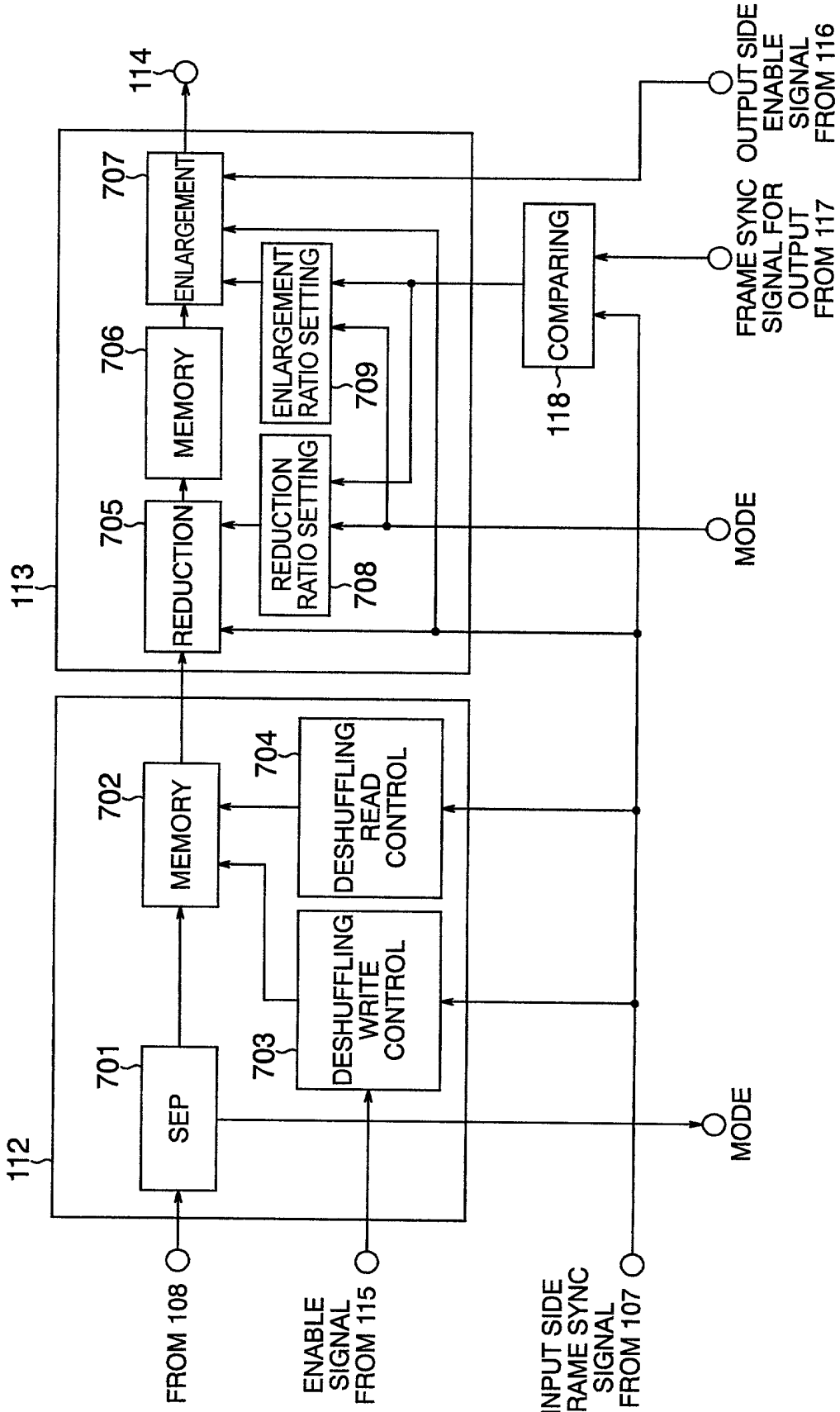

112
113
114
SEP
701
MEMORY
702
DESHUFFLING WRITE CONTROL
703
DESHUFFLING READ CONTROL
704
REDUCTION
705
MEMORY
706
ENLARGEMENT
707
REDUCTION RATIO SETTING
708
ENLARGEMENT RATIO SETTING
709
COMPARING
118
FROM 108
ENABLE SIGNAL FROM 115
INPUT SIDE FRAME SYNC SIGNAL FROM 107
MODE
MODE
FRAME SYNC SIGNAL FOR OUTPUT FROM 117
OUTPUT SIDE ENABLE SIGNAL FROM 116

FIG. 8

UNLOCKED MODE					LOCKED MODE
MODE		SAMPLES / FRAME			
		MAXIMUM	MINIMUM	AVERAGE	
525/60 SYSTEM	48KHz	1620	1580	1601.60	1st FRAME :1600 2nd TO 5th FRAME :1602
	44.1KHz	1489	1452	1471.47	
	32KHz	1080	1053	1067.73	1st AND 8th FRAME :1066 2～7, 9～15 FRAME :1068
	32KHz 2ch	1080	1053	1067.73	
625/50 SYSTEM	48KHz	1944	1896	1920	ALL FRAME :1920
	44.1KHz	1786	1742	1764	
	32KHz	1296	1264	1280	ALL FRAME :1280
	32KHz 2ch	1296	1264	1280	

FIG. 9

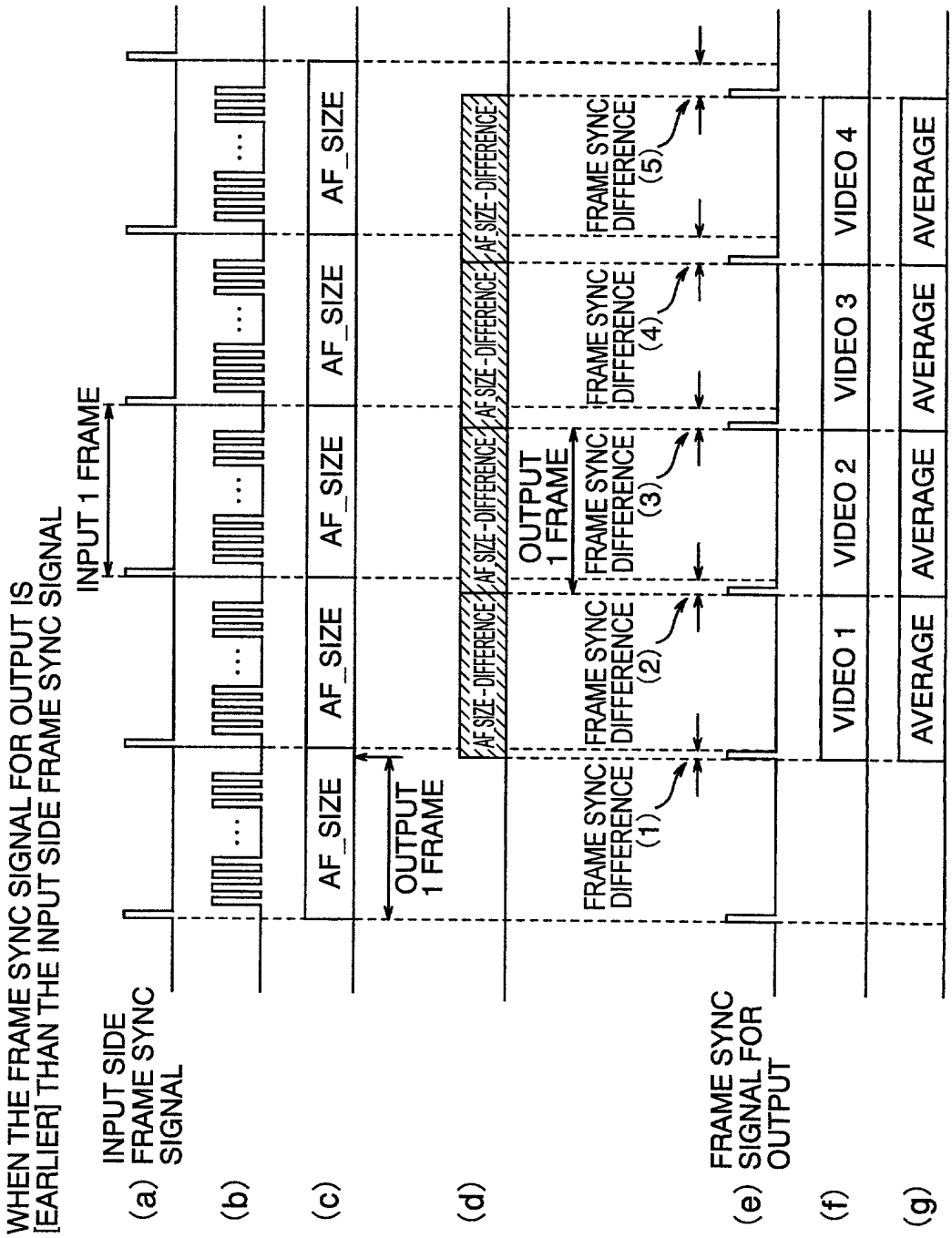

WHEN THE FRAME SYNC SIGNAL FOR OUTPUT IS [EARLIER] THAN THE INPUT SIDE FRAME SYNC SIGNAL
INPUT 1 FRAME
(a) INPUT SIDE FRAME SYNC SIGNAL
(b)
(c)
AF_SIZE
AF_SIZE
AF_SIZE
AF_SIZE
OUTPUT 1 FRAME
(d)
AF SIZE-DIFFERENCE
AF SIZE-DIFFERENCE
AF SIZE-DIFFERENCE
AF SIZE-DIFFERENCE
OUTPUT 1 FRAME
FRAME SYNC DIFFERENCE (1)
FRAME SYNC DIFFERENCE (2)
FRAME SYNC DIFFERENCE (3)
FRAME SYNC DIFFERENCE (4)
FRAME SYNC DIFFERENCE (5)
(e) FRAME SYNC SIGNAL FOR OUTPUT
(f)
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 4
(g)
AVERAGE
AVERAGE
AVERAGE
AVERAGE

FIG. 10

WHEN THE FRAME SYNC SIGNAL FOR OUTPUT IS [LATER] THAN THE INPUT SIDE FRAME SYNC SIGNAL

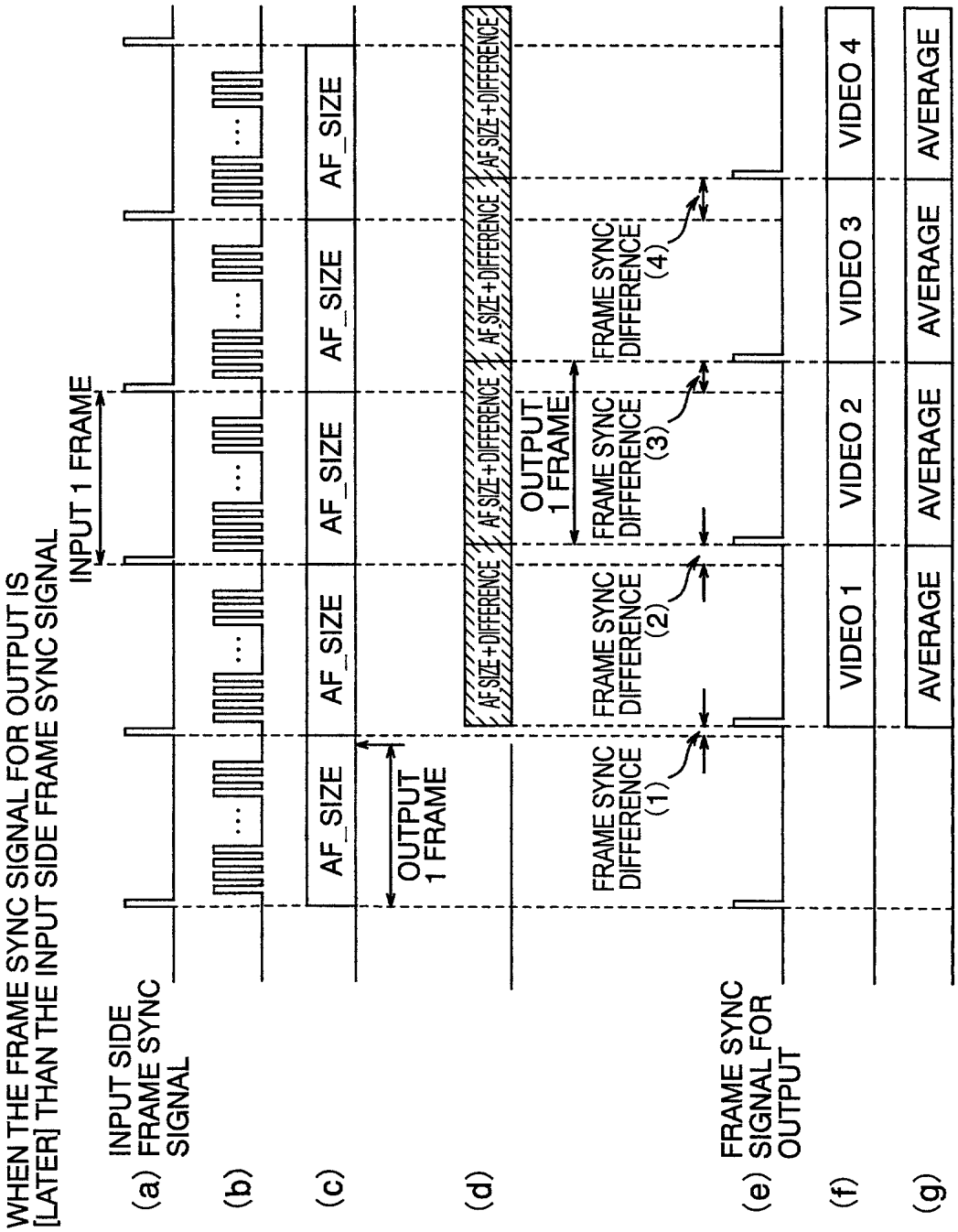
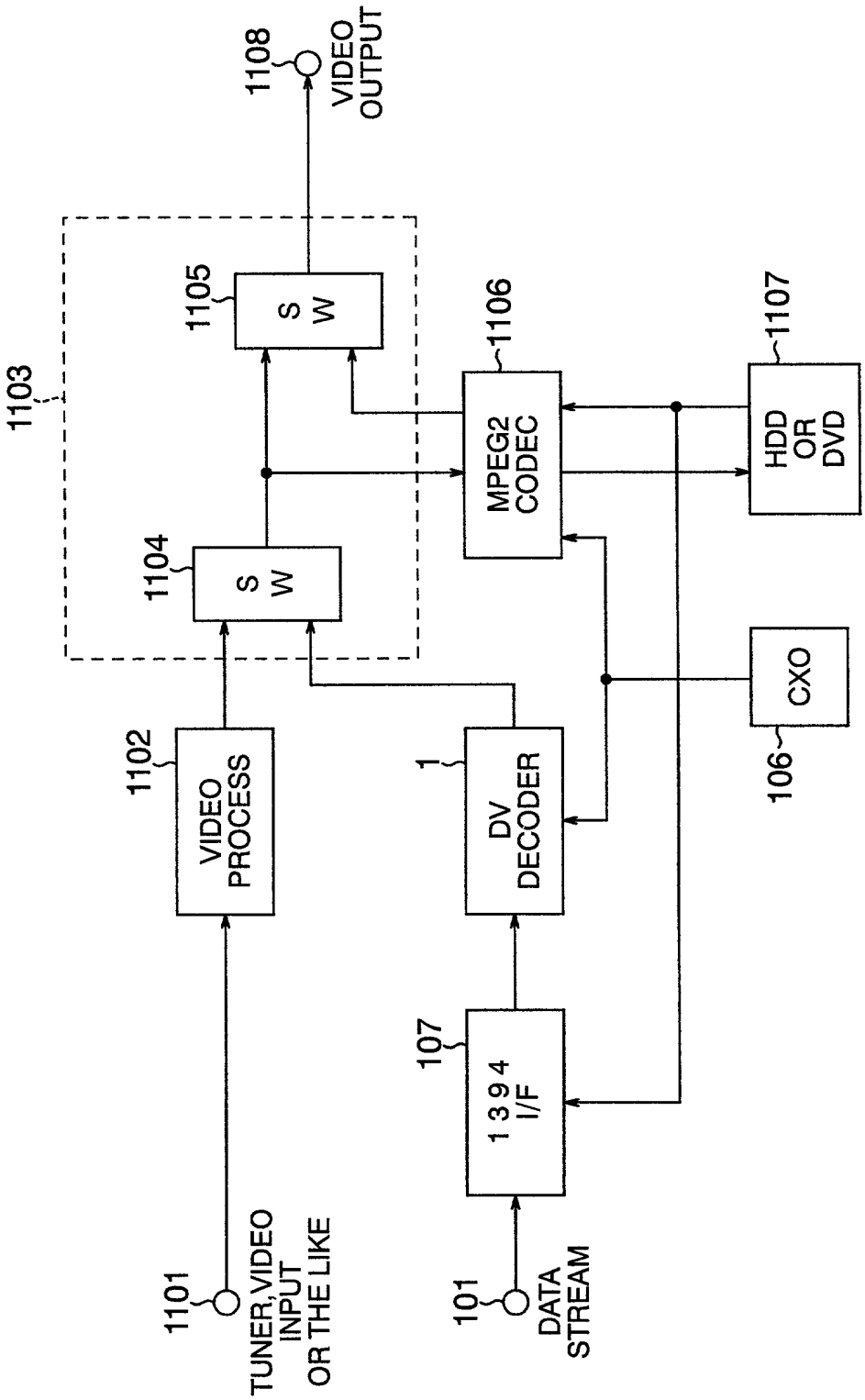


FIG. 11


1108
VIDEO OUTPUT
1103
1105
S W
1106
MPEG2 CODEC
1107
HDD OR DVD
1104
S W
1102
VIDEO PROCESS
1
DV DECODER
CXO
106
107
1394 I/F
1101
TUNER, VIDEO INPUT OR THE LIKE
101
DATA STREAM